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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,069	07/24/2001	Ming-Yee Chiu	P2000,0139US	3316

7590 08/16/2004  
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EXAMINER

MARIAM, DANIEL G

ART UNIT	PAPER NUMBER
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2621

DATE MAILED: 08/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/912,069

Applicant(s)

CHIU ET AL.

Examiner

DANIEL G MARIAM

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-12 and 19-22 is/are rejected.
- 7) ☒ Claim(s) 6, 7, 13-18 and 23-25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

1. Claim 1 recites duplicate limitations "said second portion arranged around said first portion" in lines 8-9, and thus one of the limitation should be deleted. Appropriate correction is required when responding to this Office Action.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim. The claim can be in proper form if rewritten as "The arrangement according to claim 1".

### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 9-10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe (5,329,469) in view of Thielbeer (DE 19733466).

With regard to claim 1, Watanabe discloses an arrangement for calibrating a camera (See for example, Fig.1), comprising: a camera for recording a digital image, said camera including

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processing means, i.e., image processor, for processing said digital image, i.e., calibration pattern data, and calibrating said camera according to said processing (See col.2, lines 50-68; and col. 3, lines 1-5), and; a figure, i.e., image of a dot pattern, arranged to be recorded by said camera (col. 2, lines 63-68), (said figure comprising a first portion having a continuous circular shape and a second portion with a plurality of circularly arranged spaced segments, said second portion is arranged around said first portion, said second portion arranged around said first portion).

While the image dot pattern of Watanabe are arranged in the shape of a square (See Fig. 2), The image taken by the camera of Watanabe does not expressly include a first portion having a continuous circular shape and a second portion with a plurality of circularly arranged spaced segments, said second portion is arranged around said first portion. However, such an arrangement of a figure or an image pattern is shown by Thielbeer (where the first portion shown as having a continuous circular shape (item 2, in Fig. 1); and a second portion with a plurality of circularly arranged spaced segments (as shown in the outer region of the circular ring (2) in Fig. 1, where the plurality of circularly spaced segments surrounding the circular ring (2) is shown). Therefore, it would have been obvious to one having ordinary skill in the art to incorporate the teaching as taught by Thielbeer into the system of Watanabe, if no other reason than to have a circular calibration pattern, and to so would at least simplify the calibration process.

With regard to claim 9, the arrangement according to claim 1, wherein said camera further comprises communication means for transmitting data to a remote host (which reads on col. 3, lines 6-8 of Watanabe).

With regard to claim 10, the arrangement according to claim 9, wherein said remote host is identified in said second portion (which reads on col. 3, lines 6-8 of Watanabe).

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With regard to claim 12, a method of calibrating a camera (See for example, Fig. 1 of Watanabe), comprising the steps of: digitally recording an image of a figure, i.e., image dot pattern (col. 2, lines 50-68; and col. 3, lines 1-5), said figure comprising a first portion having a continuous circular shape and a second portion having a plurality of circularly spaced segments (See Fig. 1 of Thielbeer); extracting a set of edge points from said recorded image (See the dot pattern shown in Fig. 2 of Watanabe); performing a transform on said edge points thereby obtaining an image center point (See col. 2, lines 37-49; and col. 3, lines 1-29 of Watanabe); and obtaining a diameter of said first portion to provide a conversion factor comprising a distance between said camera and said image (See for example, col. 3, lines 9-16; and Fig. 1 of Watanabe).

6. Claims 3-5, 8, and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe in view of Thielbeer as applied to claims 1, 9-10, and 12 above, and further in view of Lemelson, et al. (6,543,691)

With regard to claim 3, Watanabe (as modified by Thielbeer) discloses all of the claimed subject matter as already discussed above in paragraph 5, and incorporated herein by reference. While Watanabe (as modified by Thielbeer) provides an arrangement of codes of circular rings (using a number of possible code words and/or bits, for example), as shown in Figure 1 of Thielbeer, and a first portion comprising a disk (as shown at item 2, in Fig. 1 of Thielbeer), Watanabe (as modified by Thielbeer) does not expressly call for wherein said second portion comprises at least one circularly arranged bar code. However, Lemelson, et al. (Figure 1b) teaches this feature. Therefore, it would have been obvious to one having ordinary skill in the art to incorporate the teaching as taught by Lemelson, et al. into the system of Watanabe (as

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modified by Thielbeer), if for no other than to mark the circular segment/s of the rings using bars, and to do so would at least simplify the calibration process.

With regard to claim 4, the arrangement according to claim 3, wherein said bar code includes encoded control information used in said calibrating (See Fig. 1 of Thielbeer; and Fig. 2 of Lemelson, et al.).

With regard to claim 5, the arrangement according to claim 3, wherein said bar code includes encoded information related to another figure (which reads on the various circular segments shown in Fig. 1 of Thielbeer).

With regard to claim 8, the arrangement according to claim 3, wherein said second portion comprises two stacked circularly arranged bar codes each comprising different encoded information (which reads on Fig. 1 of Thielbeer; and Fig. 2 of Lemelson, et al.).

Claim 19 is rejected the same as claim 3 except claim 19 is a method claim. Thus, argument analogous to that presented above for claim 3 is equally applicable to claim 19.

Claim 20 is rejected the same as claim 8 except claim 20 is a method claim. Thus, argument analogous to that presented above for claim 8 is equally applicable to claim 20.

Claim 21 is rejected the same as claim 9 except claim 21 is a method claim. Thus, argument analogous to that presented above for claim 9 is equally applicable to claim 21.

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7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe in view of Thielbeer as applied to claims 1, 9-10, and 12 above, and further in view of Hinman, et al. (5,940,049).

With regard to claim 11, Watanabe (as modified by Thielbeer) discloses all of the claimed subject matter as already discussed above in paragraph 5, and incorporated herein by reference. Watanabe (as modified by Thielbeer) does not expressly call for wherein said communication means communicates via a dial up communication. However, establishing communication via a dial up communication is extremely well known as shown by Hinman, et al (See for example, col. 6, line 18-24). Therefore, it would have been obvious to one having ordinary skill in the art to incorporate the teaching as taught by Hinman, et al into the system of Watanabe (as modified by Thielbeer), and to do so would at least allow establishing and maintaining communication with a remote computer or host.

8. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe (as modified by Thielbeer and Lemelson, et al.) as applied to claims 3-5, 8 and 19-21 above, and further in view of Hinman, et al. (5,940,049).

With regard to claim 22, Watanabe (as modified by Thielbeer and Lemelson, et al.) discloses all of the claimed subject matter as already discussed above in paragraph 6, and incorporated herein by reference. Watanabe (as modified by Thielbeer and Lemelson, et al.) does not expressly call for wherein said data is transmitted via a dial up communication. However, establishing communication via a dial up communication is extremely well known as shown by Hinman, et al (See for example, col. 6, line 18-24). Therefore, it would have been obvious to one having ordinary skill in the art to incorporate the teaching as taught by Hinman,

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et al into the system of Watanabe (as modified by Thielbeer and Lemelson, et al.), and to do so would at least allow establishing and maintaining communication with a remote computer or host.

***Allowable Subject Matter***

9. Claims 6, 7, 13-15, 16-18, and 23-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art of record do not teach or fairly suggest wherein said bar code includes an encoded telephone number and URL address; obtaining an intensity profile and intensity pattern of said second portion, decoding said intensity pattern to obtain data, said data representing a diameter of said first portion; determining a radius of said first portion by obtaining a first portion edge point and obtaining a first portion intensity profile using said first portion edge point and said center point; wherein said plurality of segments define a major and minor radius to said center point and edge gradients, and further comprising the steps of: obtaining a vote line in a direction orthogonal to at least one edge gradient, said vote line having a length between said major and minor radius; determining an intersection of said vote lines, said intersection representing an image center point; and a Hough transform. It is for all of the above reasons and in combination with all of the other elements of the claims 6, 7, 13-15, 16-18, and 23-25 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent Numbers: 3574464, 5181098, 6256058, 6437823, and 6768509.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL G MARIAM whose telephone number is 703-305-4010. The examiner can normally be reached on M-F (7:00-4:30) FIRST FRIDAY OFF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LEO BOUDREAU can be reached on 703-305-4607. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
DANIEL MIRIAM  
PRIMARY EXAMINER  
August 12, 2004